

Minutes of the National UIC Managers Meeting Videoconference Held June 24-27, 2013

Participants - UIC Representatives from all Regions and HQ were present for the videoconference. See attached for list of names.

Monday, Day 1

National Priorities/Budget/Funding (Led by Peter Grevatt, HQ and Ron Bergman, HQ)

Goal: Discuss what are the highest priorities when focusing limited resources; funding picture under sequestration; FY 2014 funding allocations; and extramural funding opportunities.

- **Budget and Funding:** Don't expect budget situation to change so tough choices need to be made.
- **Making Tough Spending Choices:** Focus resources on issues of greatest public health concern and that give greatest return on investment for public health protection near and long term.
- **Program Priorities:**
 - ❖ **Hydraulic Fracturing** - Must finalize guidance. Agency work is done. Document is with OMB. It's ready for Whitehouse review. Public concerns remain high, especially in areas of new activity.
 - ❖ **Seismicity** - National Technical Workgroup through Region 6 leadership must determine how to address comments received through expert panel consultation and finalize document. May release draft soon under existing FOIA request.
 - ❖ **Aquifer Exemption** - Program must capture and understand what was done in past and, going forward, must have a clear and common understanding of expectations across regions for AE requests. The AE approval process must provide a greater level of predictability about questions applicants must answer and threshold of proof they must provide. It must also define expectations after operation is completed.
 - ❖ **Aquifer Storage and Recovery** - Program must find answers to complicated technical questions and must address communities ASR needs and questions while also ensuring projects are consistent with SDWA requirements. Projects must not degrade existing aquifers. Interest in ASR influenced by rapid development and climate change. The program must consider where ASR intersects with CWA program.
 - ❖ **National UIC Database** - Program must think carefully together on best uses of data and getting return on investment to maintain database for each year going forward. Need to address state concerns about how data will be used. The data is key to UIC being able to tell its story.
 - ❖ **Geologic Sequestration (Class VI)** - Finalizing guidances will put program in good position moving forward and are important for implementation particularly as it relates to addressing conversion of Class II EOR wells to Class VI wells. Some states are seeking primacy.
 - ❖ **Source Water Protection** - Important to understand impacts that surface activities and requirements can have underground and to integrate CWA and SDWA tools together around this issue. Program should consider policy or position to offer on nitrates in ground water and storm water management in relation to the various Class V well types.
- **Awareness About UIC:** Program has more work to do in terms of educating the public and peers about our regulatory role and ways the work we do protects public health.

Regional Roundtables and Q&A Session with Peter Grevatt – Each region presented highlights from their regional snapshots which they provided in advance of the meeting. Please see attached regional snapshots for more details. Following the regional roundtables, there was a Q&A session with Peter Grevatt. The discussion during this session mainly built on issues raised during the regional roundtables. Several common concerns were discussed and are detailed below.

- **Resources and Allocation Formula:** Regions need more funding. At a minimum, they want HQ to revisit the allocation model. Programs are facing many challenges. Controversial sites and issues are consuming much of base resources. Programs are stretched to the limit and desperately need resources. Many regions are seeing increase in workloads due to things such as increased energy and mineral extraction activities, EAB remands, controversial aquifer exemptions, new primacy applications, need to do 147 updates, and emerging issues such as hydraulic fracturing and seismicity which are also slowing permit process and causing backlogs, but are not seeing more resources. There were no new resources for Class V Rule, national database, or Class VI. Not to mention staff losses, hiring freezes, budget cuts, and furloughs. Some states are pushing back on budget cuts and are talking return of program. One state agency took a 53% hit. Some regions even feel states should be held harmless. FMFIA identified lack of resources as a program weakness as programs will fail without adequate resources. Impacts won't be immediate but will eventually show. Program may be victim of its own success because there are not many contamination cases considering large well universe. *Conclusion - Programs must critically identify where problems are arising, and put energy there. Program should follow-up on SDWA/CWA integration and determine how program tools can be used to support goals and raise public attention and appreciation of the work we do and show and discuss work in terms of drinking water protection such as articulating that agriculture BMPs prevented nitrates in X number of private wells. HQ has put forth requests for increases at every opportunity and will continue to do so. Regions should continue to keep issue on the table. HQ appreciates feedback and welcomes regional input on priorities. Regions look forward to continuing conversation on resources particularly discussion is needed on FY 2014 allocations to see what we can do nationally to prevent huge cuts to state programs. Region 8 has a special interest in this effort. Need separate discussion.*
- **CWA/SDWA Integration:** Regions are excited to hear about CWA/SDWA integration as a program priority. Many regions experiencing shifting of problems from CWA side to SDWA side due to surface water discharge restrictions. Some regions seeing creative Class V permit requests and more endangering practices some of which are related to disposal of drinking water treatment residuals. Others have benefited from these interactions such as help finding wells and implementing BMPs. Connection may not be as obvious to others. Some programs want BMPs, expectations, and clear language defining Class V wells and their requirements in program guidances. Some programs want help finding Class V wells through this integration. *Conclusion: HQ will capture CWA/SDWA integration stories and articulate to higher levels. Overall, more discussion around this topic is needed. Update from Holly Green on various workgroups around the agency may help shed light in this area. Also see discussion on CWA/SDWA integration.*
- **Primacy Applications and 147 Updates:** Regions need help processing. *Conclusion: HQ will help where they can. Also see discussion on 147 Updates.*
- **Communication Among Regions On Issues and Decisions:** Communications among regions around various program issues they are grappling with and decisions being made are invaluable. Regions have collaborated around seismicity, aquifer exemptions, ASR, unique technical issues (impact of Class II wells over-pressurizing zones). Specifically for ASR, it is important to know decisions being made or that might be made in other regions as industries may want to bring what they do in one state/region to another. *Conclusion - It is important for regions to communicate and be on the same*

page.

- **EAB and UIC Program Communications:** Regions want HQ to educate EAB about technical issues within the UIC program. Regions concerned that EAB may misunderstand UIC program role/requirements/regulations. HQ has had discussions with EAB and learned that they are already looking into process for getting feedback from programs to inform SOPs or lessons learned for both sides but want to be careful about how it's done to prevent appearance of bias. *Conclusion - Better education/outreach needed for EAB. EAB's main concern has been with providing better documentation for the administrative record.*
- **OECA UIC Funding Cuts-** Regions want HQ to discuss with OECA their disinvestments in the UIC program. Class II inspections are making OECA energy extraction numbers and OECA funding should be commensurate with this. *Conclusion – See discussion on OECA.*
- **Seismicity Document:** Regions need document finalized and in hand as soon as possible. Region 6 is pressing to finalize. They have expended a lot of time and effort on the document and want it done. *Conclusion – HQ doesn't foresee any obstacles. EAB remands may help make case for its finalization. Also see discussion on seismicity.*
- **National UIC Database:** Discussion and stories related to the program's lack of funding highlight need for better data management. The national database gives us the information we need to help tell our story to congress and the American people and vie for more funding. This is what we need to stress to our states to encourage their support of and participation in national database efforts.
- **Disinvestments** – The other side of the priorities discussion is talking about and looking at what programs won't be doing. Some programs will not make timely permit decisions. They will also have to cut back on inspections, witnessing tests, reporting, and other things they should be doing.
- **Kudos!!** – UIC program has many achievements to boast. There is a lot of great work going on in the programs. It is appreciated--at least internally. Though, program has much work to do informing the public and colleagues. UIC may well be unsung hero in drinking water and public health protection.

UIC Database and Program Reporting – Kearra Moore, Michael Plastino, Ron Bergman, and Beth Hall of HQ; all had lead roles at various points during discussion (Ron Bergman kicked off discussions; Michael gave infrastructure update; HQ and Region 5 gave presentations; regional round robins held at several points during the discussion specifically to answer list of questions sent in advance of meeting)

- **Update:** Lot of progress made. Still some programs not participating. Priorities reflect strategy to continue our success.
- **FY 2014 Priorities**
 - ❖ **Inventory Initiative:** Get at least 6 data elements for all known wells and get info in data use reports. Want at least one-time realistic national snapshot of inventory; never able to do before.
 - ❖ **Targeted Source Database**
 - Population:** Focus on having EPA DI data while also targeting regional programs with big inventories (TX, LA, KS). Zero in on Class I, II, and IV well specific data since more straightforward than other well classes. Class III and V data more complex. Class V data is disparate and difficult to fit in database scheme. There are differing variety, levels, and quality of data being tracked. Class III difficult in terms of figuring out how to input, track, and reflect data for area permits covering large numbers of wells. Issue won't hold up Class I and II data flow.
 - ❖ **Data use reports:** Views differ on EPA holding state data. Some states concerned about how EPA will interpret data. HQ needs regional help understanding how to caveat data and cover for data gaps. The purpose of the report is to discuss with GWPC in January what we have done and can do with data and help determine if

data quality is good enough or if there are other ways to cast data. They will also help us engage states and show them what is possible. Sue Kelly will head effort. Program needs to identify how reports could be used better to tell program story nationally. HQ also needs regional help developing strategy for tackling Classes III and V data and considering together how to better manage this data and choose priorities for data collection. Suggestions regions had for data uses included GIS applications such as well mapping to show location of well classes or where inspections have not occurred, Envirofacts, overdue or failed MITs. *Conclusion: HQ will follow-up with data management coordinators to set up meetings and discussions with regions over the next two months as HQ plan for January meeting with GWPC. Mary Mindrup (R7) and Karen Johnson (R3) volunteered for workgroup. Region 3 has some reports they have developed to share.*



Getting approved state buy-in: HQ

will make efforts with states through the regions and GWPC to show importance of having data and data uses. HQ knows programs are having technical and resource difficulties and is working to streamline process for everyone and to encourage participation and keep interest. Kudos to regions for help with progress to date.



Reporting Services Move to Oracle

Apex: HQ is moving national database reporting services to a new platform which has many advantages. Users create their own reports. It is easy to use and doesn't require any special database skills. There is no need to install software or connect to a server. It has a basic interface. Many water programs are already using it which enabled HQ to develop their skills and expertise. It retains same user access rights as the database. HQ must now develop a formal requirements approach to work with regions and states to identify which reports need potential improvements; which will migrate as is, new reports needed, and develop process for moving each report and creating reports. HQ will send website links that will allow regions to see how other programs are using platform. Oracle Apex is not for data submission and is strictly for creating reports.



Region 5 Database Presentation (Bill

Bates):

❖ **DI Database Development Effort:** Region 5 has new user friendly, quasi intranet based database system. Users can access it from home. Input is easier. The interface is simpler to understand. Individual well screen shots are one stop shopping and allow users to see a lot of key information quickly. The system highlights overdue tests for users to see and follow-up on. The database sets up information the same as attachments to permit application. Staff is entering more data as a result of these features. The new database has helped the region move forward with flowing data to the national database. The old, original system was made up of several different smaller databases and spreadsheets that could not communicate with each other. The region then moved to a Lotus Notes based system which was a huge improvement over the first system but it was cumbersome, took a lot of effort to update and was not user friendly. As a result, it did not get populated as well as it could have been. Also, it replaced most databases and spreadsheets from the original system but not all. When the national database initiative began, the region took a hard look at their system to see if it could do what the initiative required and also meet upgrade needs. It was clear that a new system was needed. It was an uphill battle early on determining what to do and how to move forward but the region is now at the apex of the effort and expect easier time going forward. Looking ahead, the region still has improvements to make including understanding how to best present Class V data from user perspective, backfilling data gaps, addressing report needs, making system smoother to use, and there is always a lot of data

cleanup to do. The new database has been live since 2010. R5 hired one full time SEE who spends 100% of time programming and working backend of database. R5 also gets IT support where one staff member spends 10% of time on UIC database. The region's database tracks some GS data elements but not all. Region is now trying to figure out what the screen shot should look like in terms of what data permit writers need and what additional fields would be useful to add.

- ❖ **DI Data Flow to National UIC Database:** The region encountered challenges in certain areas such as backfilling data, understanding how to flow data to national system properly, and trying to resolve data transmission errors.
- ❖ **Primacy States:** All 6 state programs participate in national UIC database efforts on some level. Four agencies are flowing data, have TPAs in place, and have transitioned to e-reporting. Two participated in the national database inventory initiative and of these one has an exchange network grant and will begin process toward flowing data. Communicating with states was challenging. Many resisted. They couldn't see return for investment and were fine with paper system. The region is still working to get the one final state fully on board.
- **Class VI Database:** HQ will create something separate for Class VI, a database or tool, by building out of GS3 software. HQ recently went to Information Steering Committee and got OK to proceed. The National Database will continue to collect standard data elements. The separate GS database will be more extensive.
- **CDX Software:** CDX needs to be stabilized so it works with agency PCs and does not have to constantly be reinstalled. Some programs are still unable to flow data even after re-install. This is frustrating programs. CGI is having trouble replicating issue which would lead to resolution if they could. *Conclusion: Currently there is no fix except re-installation. HQ is working with CGI and CDX node client to resolve. Regions will await solution.*
- **GWPC Data System for RBDMS Users:** Regions hearing that GWPC is developing a system that would make RBDMS Users' data available to HQ for data pulls and possibly for flow to the national UIC database. EPA should consider encouraging RBDMS users not flowing data to use it. HQ has more to learn about the system. It seems to be an interesting way for programs to get involved in data flow. People seem enthusiastic about the system. ND is their pilot. HQ is uncertain but believes system is not easily connectable to UIC database as there is no standard data mapping. This is solely a GWPC effort. EPA should talk to GWPC to see how EPA can use the tool as RBDMS users have issues with the national database. HQ was able to suggest two items to GWPC that would help enable their system to flow to the national database and believes that the tool has potential. Suggestions were along the lines of network exchange phases including use of standard templates/formats and virtual node that runs in cloud which network exchange is currently developing as part of phase II. EPA should make sure efforts to publish data for public syncs with GWPC RBDMS efforts to publish data. *Conclusion: HQ wants to sit in on GWPC conversations about the system. Regions wanting to hear about virtual node or other UIC database phases should feel free to contact network exchange staff.*
- **Revisiting of Data Elements:** Regions want HQ to revisit data elements in terms of what is necessary in tier 1 and 2 to flow data and to focus on real needs. HQ is aware of difficulties flowing data and want data elements and business rules to be as effective as they can be. Revisiting the data elements tie back to the data use reports effort. We must involve states willing to participate in discussions. *Conclusion: HQ will develop process and plan for making changes and will be discussing with regions. HQ will work with regions to identify states willing to participate.*
- **API Number:** Some regions don't understand why this is a data element and unsure if even relevant for some programs. Programs don't use it and there is no space on state/tribal permit application

forms to request it. *Conclusion: HQ will look into this and will add as part of data elements discussion with programs.*

- **Access to Data (Ad Hoc Query Tool):** Programs can look at data now and generate reports using the query tool HQ has developed. Regional managers should refer to database vocabulary cheat sheet to help engage with database coordinators. *Conclusion: Need session to educate managers on tool.*
- **Aquifer Exemption Database Integration with National Database:** Currently HQ has no plans to integrate AE tracking database into UIC database. They would need to ensure that the two systems are compatible and that data definitions are consistent if the databases are to communicate. Currently the only AE data in the UIC database is a Y/N field on whether a well injects into an exempted aquifer. Regions want heads up if future plans develop so they can know how it all fits in with regional AE activities. *Conclusion: HQ will look into the ability to link the two databases. HQ will inform regions of plans.*
- **Problems Holding Up State Data Flows:** The biggest issues are technical support/expertise and resources (mainly staffing losses/changes). Historical program data is most hard to get and enter. Some smaller programs have some but not all data in electronic format to map and transfer. Some, particularly smaller Class V programs are still using paper and collect limited information anyway. Program history even if only for the 6 elements for the “active” well inventory is a challenge. Programs don’t have resources to start looking through files for data and updating things particularly if they must now make systems they established and had in place for many years compatible with the national database. There are states whose existing systems won’t work well with the national database. Some larger states have other policy and technical issues. Some have conflicts with IT staff being in a separate program office. Some prefer summary data and don’t want EPA interpreting their source data. For many others the database is not a priority. Given these challenges, there are still some states that seem open to flowing new data. Some states are beginning to map. Also, states that have internal data management and transitioning efforts taking place may soon be interested in flowing data. CDX instability and compatibility of program systems with national database are also causing problems. Also need discussion on appropriate level of QA which relates to lowering barriers for data entry. *Conclusion: HQ will explore lowering barriers for entry to national database. HQ will process feedback and follow-up with regions on ways to move forward.*
- **Recommendations for Improvements:** HQ must lower the bar for data entry, reevaluate tier level to allow data to flow, and scale back on mandatory data fields. Many programs must enter too much dummy data and don’t want to do this (prefer to leave blank). Regions don’t have resources or ability to QA/QC primacy data and suggest that HQ set up a contract that regions could support or mechanize QA/QC process. We must identify data quality issues, define QA in terms of finding what we are really looking for and what we will do with data, and set minimum data quality standard. *Conclusion: HQ will do formal usability survey to get input from programs on what’s working and what’s not; needed improvements (systems/communications) and making process as easy and as effective as possible. HQ will engage GWPC on getting buy-in ahead of January meeting. Need to improve information sharing and communications. Also See 2013 Priorities.*
- **2013 Priorities:** HQ will focus the rest of the FY on showing data uses and engaging states on benefits of having automated access to program data, finding ways of getting nonparticipating states on board, finding resources including tech support and money to hire contracts/new employees, getting state to weigh in on needed improvements. HQ will disinvest in generating data QA/QC reports because current model with little regional investment/participation is unsustainable.
- **Quarterly Managers Report:**
Database updates have been included in this report. Unsure whether it is answering needs or if

regions want to do another way.

- **National Database Management and Sustainability:** Regions have seen many false starts with past national database efforts. Regions have worked hard and invested in this new system and don't want to see it collapse under its own weight. HQ wants regions to take advantage of the openness being offered on the process at this time and want feedback on changes regions would like to see or different ways of thinking to keep the effort going. HQ will do a position paper on HQ' role relative to the regions' roles. HQ acknowledges regional concerns about starting and stopping and does not want this to happen. HQ is looking for ways to keep effort sustained.
- **Telling Our Story:** The issue of being able to tell our story is important and UIC must stress this to the states. Some larger programs are afraid of how EPA will tell their story. States have to be willing to do it including acknowledging challenges. GWPC buy-in on how to use data and tell our story, not just for EPA but for states too, is important.

Tuesday - Day 2

Reporting Frequency

UIC Reporting Frequency and Procedures Decision Paper for UIC Managers Meeting (dated 6/24/2013) was provided in advance to aid HQ/Regions discussion.

- If we base reported data on same timeframe (Federal Fiscal Year) and submit it at the same time less often (twice for database and paper, once for PAMs using MY/EOY), there would be less confusion, more efficient use of time and better reported data.
- Been told we've always done it a certain way and easier to just keep as is, that HQ process seems odd, and programs don't like change but asking regions to be open to this change.
- Some reports such as inventory are reported on calendar year; some on FFY.
- Acknowledge that current and proposed reporting is inconsistent with 144.8 in a number of areas. (See 144.8 summary in discussion paper). Timeframes and information collected shifted away from regulations over years. The 1st system was deemed impractical and was abandoned in 1986. Then went to quarterly 7520s summary data. In an effort to reduce reporting burdens 7520s were required quarterly for exceptions and at MY and EOY for others. Documented in ICR. PAMs even more obscure.
- We have 5 reports due at 6 different times and different data availability because of time needed for input, QA, and other things before final. Similar/comparable data is being collected at these different times.
- **ICIS:** Regions are entering more and more enforcement data into ICIS and making sure inspections, such as for energy extraction, get in. HQ is aware of double entry and is working to solve. Database will eventually link to ICIS. HQ began talks with OECA and will pick back up. There are resource constraints for both. Talks were more about costs.
- State of Things Now: Inventory is calendar year. Paper inventory submitted through IMRS submitted Dec/Jan and is available immediately. Database inventory submitted Feb. 15th and not available until Apr. 1. 7520s (not available for February 1 allocation; HQ manually enters estimates for allocation formula; overall,

there is 2 year inventory data gap for calculations.) and PAMs are FY. PAMs data not available until Jan/Dec. PAMs are difficult to generate from database. 7520s available 8 weeks after end of quarter. Database is 45 days after end of quarters and available 90 days after by FY (90 day lag in data availability). Summary PAMs reported through ACS is submitted in October/November timeframe.

- Proposed Changes: (1) Bi-annual database submissions at MY and EOY--was quarterly; (2) Bi-annual exceptions list reporting for 7520s—was quarterly; (3) One EOY PAMs submission to IMRS—was bi-annually at MY and EOY; regions may still need to do ACS reporting though; (4) EOY FY submission for well inventory—was calendar; (5) have caveat for more frequent data submissions. (6) Implement changes quickly. Need to inform states of changes. Some regions already sent their states reporting guidance so they would have to supplement it with these last minute revisions. So, regions want memo from HQ to get in front of state now particularly since HQ wants changes implemented soon.
- *Conclusion: Most regions seemed agreeable to these changes (same positive response when discussed at last UIC call). There were some concerns about inventory change to FY that still need to be fleshed out and addressed. HQ will send out memo and firm guidance establishing process going forward to help regions communicate changes to the states. HQ will also communicate changes to states at GWPC. Regions should answer questions and send to Beth Hall. HQ wants to make sure all regions are all on the same mode.*
- ACS: Only regions input ACS. Regions will still need to do ACS reporting. There is no way to flow data from the national database to ACS and no plans to do so.
- Ultimate plan is to have all data flowing into and coming from the database. Some regions cautioned that manual back-ups are important until full QA/QC specifically for inventory. Paper reporting for inventory is still an option at this point.
- Parking Lot: Regions could benefit from discussion on timeframes of allocation and grants in relation to inventory submission.

Environmental Justice

- Regions are doing EJ screens and working with their environmental justice offices, and OPA in others, on EJ efforts, reporting, and in making sure program is meeting EJ requirements.
- In past, some used EJ Seat and EJ View but regions should be using EJ Screen. Some regions have already been trained on the new tool. EJ Screen is quite different from the old tools.
- Getting very few EJ hits.
- Regions are addressing EJ in various ways including developing separate communication plans, doing early outreach in advance of public hearing, holding more public meetings, enhanced public participation and outreach. They are reporting these activities to their regional EJ offices/teams.
- Some regions prioritizing Class I as highest priority for EJ.
- Some regions getting support through regional EJ funds, teams, and workgroups and are also participating on these workgroups/teams.
- Regions have worked on and have in place regional EJ implementation plans that have been shared with the public. Some regions presented regional EJ plans to tribes at tribal workshops.

- There were tentative implementation issues associated with sharing tool with public. Order allowing public to view EJ Screen has not been signed so caution must be taken engaging with the public on this until signed.
- *Conclusion: Regions 5 and 6 will share their EJ planning documents with Region 3.*

Resource allocation formula

- Some smaller programs seeing unprecedented, exceptional cuts from FY 12 to FY 13 and as compared to other programs (some states got increases). One program went from a tentative 23% cut to a final cut double the percentage. Unsure if these are anomalies or will continue.
- Safety net is needed for specific agencies moving forward to FY 14 under sequestration to prevent these kinds of cuts understanding there are trade-offs. Some programs can't get money some programs that are based out of autonomous commissions get.
- Some regions were able to move DI funding to cover states. This can be done but HQ is reluctant to do this because they don't want to see free for all in terms of regions and programs moving money around as they see fit to address the situation.
- Suggestions include increasing base funding which will affect the model being responsive to inventory changes year to year, bringing money up front to certain programs before running the model, agencies within a state sharing funds, determining if there is enough of an issue to revisit the original intent of allocation model and what it is trying to achieve or even reopening model though understand takes huge effort to do, work sharing agreements with states which has pros and cons (better than primacy withdrawal perhaps), state programs increasing their permit fees to raise money for program politics aside, take advantage of block grant and shift resources to UIC.
- Current path of cutting is unsustainable and certain allocations mean no program.
- We have to work within the reality that the pie will not get bigger and will continue to shrink.
- More discussions with regions and HQ around topic are needed. HQ is happy to have further discussion around goal of formula and if we want to change it to preserve programs and think what it means for primacy or primacy of particular well classes.
- Efforts to change allocation formula came to a stop; another example of HQ false starts.
- OCFO is running their own versions and making their own cuts and the allocation numbers were jumping all around. Also, RA sent out the wrong numbers.
- Regions want to better explain cuts to states, i.e. what went into formula, what number did we start with (FY 12 was \$10,852,000; FY 13 was \$10,286,000), are inventory numbers correct. Easier for states to accept more equitable cuts than trying to explain why one program got huge increase but another got severely reduced.
- *Conclusion: Place this topic on the agenda for the next UIC Managers Call and discuss whether the original intent of the model 30 years ago still makes sense given the fiscal realities we face, things that can be done short of doing nothing*

or reopening model, regional fiscal situations with their states, what regions are hearing from their states, seeing where protecting smallest programs as a priority will take us in terms of how we do allocations. Regions should contact Denny Cruz (HQ) who can help with explanations.

147 Updates

- regulations and ensure compliance. Foundation of our ability to enforce
- ensure done efficiently and timely. HQ will layout process to follow to
- but HQ will continue to support (21 crosswalks done to date; resourced to do 2 more for FY 2013/2014). Some regions helped to fund contract. Another one of HQ starts and stops
- and developing new 1425 crosswalk based on Guidance 19 and updating the guidance where needed. Working on 1422 verbatim crosswalk
- codifications and state websites to assess program changes and what needs updating. Contractor (Cadmus) is reviewing 147
- forms and documents needed to do updates and help make process more efficient. Developing a 147 revision manual and
- together with regions seems to be working. Team approach of reviewing rules
- state rulemaking and getting any revisions through regulatory process, back and forth between state and EPA attorneys, resources, competing priorities for programs and ORCs, getting AG statement, politics, and some programs don't need to be updated Challenges/Barriers: These include
- regulatory citations and need minor updates. Some DI sections have wrong
- working toward C6 primacy occur at same time as rest of 147 update for better efficiency. HQ suggests that where applicable,
- opportunity to engage states on 147 updates. State HF rule development presents
- HQ on 2 updates. Still need final codification in Federal Register which HQ still must do. Process worked smoothly. Should have published 1 notice including schedule for a public hearing. Region is taking HQ lead. Challenges were coordinating with lots of other people and groups to get work done, state rules not by reference or verbatim required detailed review. Region recommends to be clear with state in terms of expectations of timelines and consultation and to give informal advice prior to seeing formal package. Region 10 Presentation: Worked with
- Next Steps: Form informal workgroup around making process better and have monthly calls from policy perspective. HQ plans to begin with this first call to see what topics come up. Expects workgroup to identify issues and determine how to get around them, help develop 1425 crosswalk effective criteria especially where it concerns HF guidance. Regions support monthly discussions but some think it should be handled as standing topic at regular UIC managers' calls. Regional suggestions for next steps include formal word from HQ to states, such as through GWPC or memo, that 147 update is a priority (helps with buy-in at higher levels of state agency), update guidances, streamline process (helps with resource issues; burdensome process especially if program hasn't been updated in a long time). HQ has monthly

meetings with OGC and wants to take on topic of communications with regional attorneys on 147 updates.

- *Conclusion: Regional staff wanting to participate on workgroup should email HQ of interest and suggested dates for first call. Also email HQ about problems with any OGC attorneys.*

OECA

- UIC has been seeing cuts in OECA funding for program. This is a concern because UIC adding value through energy extraction inspections and informal enforcement.
- **OECA's Allocation Formula:** Not updated since 1985. Formula doesn't include doing/tracking/reporting inspections for UIC although other programs get it and focuses on formal enforcement action. Revisiting the model may be a short fix to get UIC more FTEs.
- **OECA Tracking/Reporting:** Regions can now track UIC inspections and have been doing a lot of additional data entry. OECA only considers data entry if done to ISIS not the program database. Problem is that OECA is not taking advantage of streamlining reporting for UIC through use of national database.
- **UIC OECA FTEs:** Regions feel OECA misunderstands the number of FTEs UIC is getting and what they are used for. OECA believes UIC getting more FTEs than it actually does. Regions are doing more work to support OECA than they get credit or funding for. OECA is not taking into account increases in mineral and oil and gas production activity when looking at their UIC investment. Regions want OECA identify exactly where their resources are and how distributed. Regions want OECA to consider returning lost resources. Discussion of FTEs is higher level management issue.
- **Value UIC Adds:** OECA disinvestment piece says UIC not doing formal enforcement but compliance rates are high through informal enforcement and UIC has no resources to do civil/judicial referrals. OECA mindset is that AOs and NOV's don't count. OECA reassures UIC that these efforts do count.
- **Energy Extraction Initiative:** UIC is making the inspection numbers for this initiative. In face of cuts, HQ asking for increase in numbers. OECA does not dictate the number of inspections unless part of an enforcement initiative. Enforcement initiative while not core program is related to OECA funding. Data for this initiative is being entered into ISIS and now tracked as UIC inspections.
- *Conclusion: OECA will take messages to its management and will revisit their workload allocation model for UIC. OECA will report out on the workload allocation revisit at July managers meeting.*

ASR

- ASR has prominent role in water availability and challenge to ensure water quality.
- Current discussions center on activities in FL that have mobilized arsenic due to oxygen interacting with sulfide bearing minerals (pyrite) and finding an approach to manage the situation while keeping national perspective on its impact across programs.
- **Florida Update:** ASR is included in their overall water management strategy. Water demands are increasing and Florida planning to

develop more water supplies. State views ASR as important tool to sustain state's water resources. State has 37 active ASR systems-- 46% for uses other than drinking water such as for irrigation and surface water augmentation. Seeing arsenic in monitoring wells and recovered water. No drinking water above 10 ppb has been served to public. State's 2005 position paper lays out process to address endangerment and steps to compliance, and institutional controls for migration, point of recovery, treatment and retreatment. This tool uses state rules that EPA approved which allows a water quality criteria exemption in the aquifer. Not used historically except for secondary national DW regulations. Being used for first time for primary drinking water regulations at one water supply. Supplier didn't want to continue operation under construction permit and to move forward with ASR UIC permit. Region is working with state on permit approach that would not use exemption to deal with arsenic.

- Florida Letter:** State requested written EPA response to 2005 paper. It is important to respond nationally. Reading interpretation of 144.84 as allowing flexibility under Class V on case-by-case basis and limit this approach to drinking water uses only. Wells can operate with set of conditions to include minimization of mobilization, preventing migration, not transferring burden of operation to others such as private well owners or other system owners, and establish process of institutional controls such as through zoning and land ownership to meet conditions and not rely on treatment alone. HQ will raise issue to management to decide where priorities are. Regions don't want national position on flexibility to impact other situations. For example, regions have had private water well owners requesting to inject treated water in wells with dry or depleted water table. Regions allowed wells to be authorized by rule because there was no evidence of arsenic or other contamination and required that inventory be kept up-to-date. Regions also explained to owners the absurdity of practice and that they may be being scammed. One state also established standards and certification for haulers to ensure water safe and clean. Some regions feared that in FL case if state can't do widespread that they will use exemption to get non-drinking water uses. Some regions ok with widespread use as long as o/o recycling water or retreating water before any type of use, hook being recovery end of ASR. Some regions expressed concern over institutional controls to prevent future wells; experience is that from long term standpoint it never happens. Some regions support as long as letter clearly states that path is using director's discretion in issuing Class V permit for protection and specific to site. AE is for all contaminants and aquifer no longer afforded protection but difference in FL is that exemption was specifically for arsenic. EPA would still consider USDW; is a drinking water source just must be treated for arsenic. Rulemaking won't be needed to assure scope is limited. Next step is to finish flushing out issues, send for additional review/comment, and share with state in July to determine if they still want letter. If they do, HQ will roll out nationally to pin down final message and HQ will try to get letter out by end of July.

Conclusion: Overall, regions support some flexibility and feel it is reasonable with caveats discussed.

Seismicity

- National Technical Workgroup through R6 lead has categorized comments from expert panel. Working with HQ to build agreement before finalizing comments to the report.
- Developed decision model as a flowchart on what programs can do in seismic cases.
- Gist of decision-making is site assessment and reservoir characteristics.

- R6 planning to deny Class I no-migration petition renewal due to pressure build up in zone and seismicity in area.
- Been working with states on literature review and using regional expertise.
- R6 is encouraging states to develop contingency plans in new permits if seismicity identified in area.
- Report sent to expert is same report sent to members in December and is still current version; members asked not share because it is preliminary; technical workgroup members will be brought back into process.
- Regions need document to assist with EAB remands; like it; and encourage HQ to move forward. Document is recommendations not guidance. Regions don't want to have to step out in front of document. EAB interested in well failures due to natural seismicity. Program will shut well in but this may not be addressed in report from this standpoint. R2 RA very interested and vocal about seismicity; wants to have seismometers at every Class II well; document would help.
- Peer review and finalization next. FOIA request for document should speed up process.
- R6 has given states specific recommendations and is happy to assist others with report findings.
- Revision and supplement to statement of basis. Be explicit about what was considered around seismicity and precautions to prevent it.
- Regions will share records on seismicity.
- Remember focus is on drinking water and health protection and seismic impacts on allowing waste to escape into USDWs. Not about preventing seismicity. Concerned about reporter getting draft and not focused on what we are required to do as opposed to what public expects us to do. Workgroup grappled with this issue and is valid for consideration. Report written to make clear basis for doing report is for USDW protection. This is a complicated issue with no one solution or easy fix. Only tools to manage and get in front of problem and be proactive and precautionary. Heavy use of USGS data (existing seismic network) and contingency planning (monitoring, testing, reducing injection rates). This discussion buried in appendix but comments indicate that this needs to be front and center. Consider whether in historically seismic free zone or are in new territory. Reservoir engineering tools also useful and show promise for site characterization, industry expertise interested in working with EPA on some of this. Public may want elaborate costly studies but this is not practical for regions.
- Regions experiencing increased public interest due to seismicity. R8-Colorado, Raton Basin had one well couple of years ago that may have induced seismicity, R2, R3, R5 Youngstown, OH, caused by previously unknown fault.
- R6 will send R5 recommendations. Nancy will also share GIS data it has downloaded and cleaned up on earthquakes.

Major vs Minor Permit Modifications for MIP Increases

- OGC PWS call raised that some regions doing MIP increases as major and some doing as minor.
- Either way acceptable but need more

precise permit language to deal with as minor (focus on method in language vs pressure). There are significant differences in the two and is a workload issue for some doing minor.

- Regions doing major modifications are R2; R3; R5 if changed as result of new construction otherwise minor; R7 have not had to do yet but permit language lays out what is needed for pressure increase and states it is major; R10.
- Regions doing as minor modifications are R4 in accordance with specific permit language otherwise it is major; R6 for Osage program; 147 has specific rules for Osage program; mainly do because injection reservoirs in county have very low pressures; R8 has permit language explaining; seeing relatively minor increases that fall within margin of safety error; view as minor as long as evidence shows it will remain below fracture pressure; R9 because public examines how pressure determined and this is where safety and criticism needs to be; not on what is determined; importance lies with method for setting a good pressure with requiring additional step rate tests or requiring equipment to handle pressure.
- Class VI rulemaking deals with it as major for Class VI; had significant discussions on this and conclusions for doing major is discussed in preamble and response to comments; may look here for answers.
- *Conclusion: Regions will share their permit language and justifications for preventing going out and reissuing permit. Need OGC to weigh in on permit language for doing it both ways which would resolve consistency issue. Raise issue at next UIC managers call.*

Nutrient Loadings Through Class V Wells (SDWA/CWA Integration)

- Class V wells helping to prevent nutrients may be overlooked.
- Started state/EPA initiative to improve linkages around a year ago.
- State associations working simultaneously on similar effort and EPA joined forces.
- Path forward presented at Water Division Directors meeting; it was well received and they want more.
- Now ASDWA, AQUA, GWPC, OW, and Regions working together to identify ways CWA tools can be used to better protect drinking water by focusing on surface water quality.
- Group looking at regulatory and non-regulatory tools, case studies to highlight past successes and demonstrate opportunities for potential success.
- There are 3 sub-workgroups (WQ Standards and impaired waters; point sources and permits; and TMDLs and Non-Point Sources). UIC is being discussed in sub-workgroups.
- Plan is to develop short document on nuts and bolts of CWA tools to facilitate integration work including criteria for protecting use as drinking water source, TMDL development, how tools successfully used, stumbling blocks, and recommendations.
- Group is addressing source water protection in nonpoint source subgroup and there are some UIC discussions on Class V.
- There is also a site and region specific

workgroup on bromides; only HQ and regions; no states yet.

- Some regions feel there are problems with addressing UIC through source water protection. These include Class V messaging and regulatory tools UIC can contribute to protection of surface water quality is lost or watered down.
- Nutrients is a big deal in terms of agency priority and UIC needs to have a prominent role at every opportunity.
- Source water protection program has not been helpful in past sharing information and identifying wells through assessments. Some regions were unaware of workgroup for example. Some regions have regional workgroups but unable to see how Class V wells is being integrated in these joint program processes. Others need to understand role UIC can play in all this.
- Database Class V data can help us cast our story on connections with nutrients and surface water.
- *Conclusion: SDWA/CWA should be added to regular monthly UIC managers calls. HQ should provide a list of contacts for workgroups and subgroups so UIC managers know who to contact in their region about the effort. Should consider paper on what Class V has to offer in reducing nutrients.*

Wednesday - Day 3

Aquifer Exemptions - See: *Draft Deliberative AE Discussion Paper* provided in advance to aid HQ/Regions discussion.

- **Consistency:** Decisions and related administrative record documentation being increasingly scrutinized (wells associated with mining operations and Goliad are examples). Industry complaining to HQ about inconsistency across regions/states. Companies want to understand what information EPA is looking for. Need consistent approach.
- **AE Data Collection & Database:** HQ has been working on a AE database in conjunction with regions. Goal is to get national record to understand and show what was approved and where and make information publicly available. Database will enable us to do this. Great achievements made since we can now show a vast majority of previous AE approvals but still don't have full records. Also, project overdue and must be completed by end of July.
 - ❖ Kudos to regional staff and management for assistance particularly Regions 5, 8, 9, and 10.
 - R8 has been a tremendous help and gathered information from over 2000 AE approval records (the majority nationally).
 - R9 gathered information on 200 AE approvals which will eventually be added to database.
 - R5 collected in-house data and retrieved archived records; HQ contractors will do site visit to review records.
 - R10 have GIS maps of all AE approvals in Alaska (only state in Region with AE).
 - ❖ Database has field to show which AE approvals were substantial (HQ approves) vs non-substantial (Region approves program revision; 147 update).
 - ❖ *Conclusion: Regions should let HQ know if they have AE data that needs to be collected.*
- **AE Document:** Workgroup developed a 70 plus page list of issues including appendices and research information after a few rounds of review, addressing comments, and determining issues that must raise to HQ/regional management and/or OGC on legal and policy issues. Workgroup achieved great success capturing all issues surrounding AE approvals. From the long list, the workgroup settled on 7 priority issues as discussed at the last managers meeting where they think there is some agreement. Workgroup consensus to put forth these areas for consideration is a great milestone.

- **Defining & Discussing Document:** Once regions agree on the priority issues, the issues will be the basis for some document to present to upper management. The workgroup started out with best management practices but kicked around idea of doing guidance or technical manual. Regions should be cautious in talking about document and what we call it. If guidance, OMB will want involvement. Also, HQ received FOIA request for the current draft which has been thru number of denials/contemplation of law suit. Better to call it a straw document. Best not to talk about it outside of program at this time. HQ spoke on this at last GWPC board meeting and GWPC understands sensitivity/risks.
- **State Weigh in Specifically for Restoration and Waste Remaining:** In talks with GWPC, states still have fundamental questions for us to address. States want EPA to vet a smaller set of points to then go back to GWPC and build from there. States feel some areas are their jurisdiction. Specifically for waste remaining and restoration, workgroup struggled with this issue and view important to require demonstration or clarification that it was made although this is not one of the 7 priority issues. Public is concerned that applicants never able to restore aquifer to original condition after injection activity is over and want EPA to document but it is part of state permit process. Agree that waste migration and restoration are same issue in context of AE. Overall, need agreement and more conversation with states before finalization.
- **Document Status:** List of major areas distributed for discussion at this meeting were extracted or paraphrased directly from last draft sent to workgroup members in Nov/Dec 2012. HQ is still wrestling with latest round of workgroup comments and incorporated most but still negotiating how issues are framed in document. Once complete, HQ will forward newer version to regions for comment. Format for statement of basis changed and there were other changes. HQ can send the latest version but with understanding that it is only for agreement on the priority areas and there will be something forthcoming on AE for regions to review.
- **Agreement on Priority Areas:** Important for managers to hear from workgroup on whether document reflects their understanding of areas of agreement achieved and how issues should be framed in future talks with states and tribes.
- **Process:** Tried to clearly describe process. Clarified what record should contain looking at private and public wells. Also clarified how EPA interprets regulatory terms and considerations. Wanted to make sure description didn't change current practices. Must clarify wording "considering all aspects of proposed injection." Others may interpret this to mean things UIC doesn't review such as water quality. UIC evaluates current use and nothing more. Need to clearly articulate where our authorities lie. Early on in the case of Goliad, region was looking at something beyond current use (For Goliad because it was economically mineral bearing.) Current use means wells that currently exist, not offsite ground water or future wells. HQ talking to OGC about a specific set of considerations regarding issue of current use and want to layout clearly in the document. Need clarification on how EPA will manage information on approval/disapproval (third to last bullet). Will everyone use database or is it up to regions to decide how to track information going forward as long as includes key set of data elements. On bullet #2 for federal regulatory requirements could use more clarification substantial versus non-substantial and relation to 147 update. Looking at regulatory requirements, AE ties into 147. May need OGC weigh-in if we find AE not in 147.
Conclusion: There was general consensus layout process as put forth with a few comments.
- **Documentation:** Sent regions most recent statement of basis template. Want to ensure regions will follow it if adopted. May be more updates due to situation with Goliad. Each region has own approach but think Statement Of Basis consistent. Information requested in template is background, i.e., water supply but needs to be how we arrived at our conclusions/findings. This concept is alluded to under heading of "describe EPA's determination regarding proposed AE". Some information in deep, isolated aquifers such as ground water flow and TDS sampling nearly

impossible or cost prohibitive to obtain. Limited input on lower confining zone; not well defined. Anything below AE is no USDW determination. May allow some discretion for deeper aquifers particularly when certain information gathering is not feasible. SOB shows due diligence and how you used existing info. Just explain in SOB how we were able to justify conclusions with documentation you have. No discussion needed on administrative record because SOB is what informs it. There is an administrative record SOP template that HQ will share. Some regions want list of base information required across regions, i.e., confining zone and information not required but useful to have. Specific lists get tricky because there will always be situations where need more detail. Can list factors that would lead to asking for more info. Best to stay on concept of process and SOB. Can clarify different categories as we move forward but not quite at that point yet.

Conclusion: There was general consensus to layout process as put forth with consideration for input from this meeting.

- **Substantial vs Non-substantial:** Needs more clarification. Pulls from guidance #34 which is not too helpful in determining substantial/non-substantial. Must look at law. TDS specifically is an issue especially when can't quite tell if TDS is 3,000. HQ knows not well defined hoping to clarify in document including what information is needed to determine. Regions seem open to third category for non-substantial AE that we may want to treat as substantial such as for EJ, large potentially impacted population, or significant opposition. This category should be left to regional discretion with input from other regions/HQ to review and make call because substantial AE has big implications for states, regions, and HQ in terms of resources, time, and effort. Need elaboration on kinds of factors that would inform decision such as population. Going beyond guidance can be real concern for states and industry in terms of impacting timing of decision so regions must think through carefully. Could also be court challenges if go beyond rule/guidance. Clarification is helpful at least provide boundaries around idea of substantial/non-substantial. RA level discussion needed too. Need to flesh out differences and get act together because this is one of the issues that will go to OGC. HQ can delegate proposed rule for substantial to regional administrator but not signature of final rule. Water availability and impact on future availability of drinking water is discussed in document as factor to consider in making decision. Water availability (drought/water shortages) will become bigger issue. Need for third category seems more about informing public who may be unaware of AE. Can still call non-substantial but with high interest and hold public information sessions or hearings to help with decision. This would keep with regulations and may quell state/industry concerns about timely permit issuance. One region tried to do non-substantial as substantial but got kicked back to region who then just held additional hearings (R7 Nebraska; for radium mining).
- **Current Use:** Guidance or regulations don't define current use. Must clearly define so all on same page, may be different approaches but determination that current use should be clear. All regions must agree on concept of current use. Current public/private draw from aquifer.
- **AE Tracking:** Regions can track AE approval data on own but expect to have updates reported to HQ quarterly.
- **Public Participation:** Regions talked about EJ considerations. Idea is to inform public on decisions that will affect them. Must make sure we have materials to present and find ways to inform them of proposed decision. On end of 1st bullet, says AE no longer afforded SDWA protection. Legally must address and make point but must also be clear to public. Different from saying it may be in condition to use later. Doesn't mean unuseable in future. Public must understand especially if private well gets drilled later that aquifer not protected if problems from past use arise. Still may have protection under 1431 which can communicate as alternative solution. Full disclosure important so public knows ins and outs of limitations. Important to note that AE approval for specific purpose and aquifer portion and is not automatic for other uses and new determination needed (plume

extension for example could be different). Some regions believe still could be problematic legally so limitation really should be by permit; for many uses AE might not be big enough. Public participation is something don't envision requiring states to do. We encourage states to use document in getting information and making their determination but approval and public participation is our responsibility. Must consider how we roll document out and communicate to states because could change expectations and MOUs with states in a way states view as significant. Public comments inform decisions and may change proposed decision.

- **Factors for more/less scrutiny of AE:** There was general consensus from regions on the factors listed in the AE major areas document. Population growth and water availability are key areas based on R6 experience. One suggestion is to add cumulative impact of multiple AE in portions of same aquifer on future availability of drinking water. R6, for example, has been hearing this complaint from communities. One comment is that language about newly discovered USDW occurring during operations appears that EPA can rescind an AE. Revisiting AE is an issue we should take up in AE document. AE expiration date is on list of others issues to discuss. R8 believes must distinguish whether sufficient scrutiny given initially to USDW identification/determination. Looking to states to make initial determination unless state requests technical assistance. Relying on state effort could be problematic especially should new information come to light later.
- **MOAs and AE:** HQ is looking at MOA language to identify issues that warrant revisions. *Conclusion: Regions should send applicable MOAs to HQ if haven't already.*
- **Overall Conclusion:** *HQ will consider comments put forth in the meeting and will send updated document based on comments put forth at this meeting as soon as possible.*
- **Parking Lot:** Some regions concerned about not having reasonable timeframes to review documents it gets from HQ. Short turnarounds are difficult with workload and other priorities

Hydraulic Fracturing

- **Guidance Documents Status Update:** Submitted in May to OMB. Documents include interpretive memo about diesel fuel for all programs, technical recommendations for DI programs, a FR announcing the documents in future (expected to publish late 2013, after OMB review). HQ compared guidance in terms of standards and best practices to other guidelines put forth by others. There are some anomalies but overall our guidance is similar on many things such as baseline monitoring and AOR.
- **Diesel Definition:** Stakeholders more concerned about diesel definition than technical standards because will just tell suppliers to stop using diesel in their product. No challenges on draft in terms of definitions. Latest version includes 5 cast numbers which is slightly narrower than draft last year.
- **Potential Workload, Impacts of Guidance, and Diesel Bans:** Programs may get more permits depending on final outcomes in guidance and after outreach on guidance. States such as IL have passed very stringent HF rules and may see more oil and gas permits at the state level as a result. Unsure if states will be able to ban diesel in HF through oil and gas regulations. Most regions agree it is contingent upon UIC to deal with it and expect that industry will stop using diesel once guidance comes out particularly since diesel is not a primary or necessary constituent in fracking fluid. If industry discontinues use of diesel, it would not be UIC regulated. In R6, for example small operators use diesel and this could be big workload for states who must issue those permits. Data for most small operators is not in FracFocus.
- **Outreach to Disseminate Guidance:** Target communities with large Class II well population and

educate on HF process and what we regulate in relation to use of diesel fuels. Getting lots of questions/comments about HF and appeals when public noticing permits which show lack of understanding about HF process in relation to well stimulation, risks, and how often use. Help them understand HF not always associated with every permit issued. Agency workgroup on communicating HF issues may be able to help with messaging. Our message on risk is that we are weighing through ORD study and will have more information when final. Some regions feel in interim something more is needed to inform public that no danger found to date. States with few Class II wells won't need a lot of outreach, Iowa for example. Approach for states with many wells is to keep watchful eye out for potential problem and if good enforcement case pops up could be used as case study. Use FracFocus information to identify products using diesel and do outreach to companies that make product (encourage to switch; notify buyers; labeling) and to buyers informing them of need for UIC permit and potential liability. Buyers might not know diesel in fluid because formulas are proprietary. States have many wells in FracFocus showing frack fluids as proprietary using diesel compounds (half in R6; 65% overall reporting at least one proprietary element) so need to do more outreach to states and work with them to assist operators. R6, for example, looked at 67 wells in FracFocus, found 2 wells using diesel for Arkansas, and informed state of this during evaluation; following state discussion, most now reporting petroleum distillate as proprietary in FracFocus.

- **BLM rulemaking:**

- ❖ Raised a number of issues to BLM who seemed unenthusiastic about making changes to address suggestions. A few highlighted here.
 - Definition of Usable Water: They adopted SDWA USDW definition for useable water but added term "generally" for TDS. Some areas still seem inconsistent with and less stringent than SDWA. In some areas they seem to defer to state but overall language is unclear. They also reference AE and Class V and did change some language. Seem to make some attempt at clarifying in new version but still not clear. We recommended they edit for more clarity.
 - Cement Evaluation Log: BLM wanted to be flexible on information to be submitted. Documentation now includes cement bond logs and introduced use of a type well which is representative of a number of wells that have similar SDWA geologic characteristics so BLM could apply top rigors of well requirements as needed for wells used for HF.
 - Preamble Language: There were some issues with language on Class II permitting. Suggested guidance to reflect our position. But preamble does say HF with diesel is Class II permit activity and they reference our guidance.
 - Pressure threshold for annulus pressure during HF: They set this at 500 psi. EPA said too high. They said consistent with actual operations. They didn't change this but did add that operator must do immediate corrective action if annulus pressure exceeded 500 psi.
- ❖ **EPA Weigh-In During BLM Public Comment Period:** Concerns about BLM rulemaking raised in RA HF Call. Feeling was public comment period not right time for EPA to weigh in. Best way is through OMB process for final rule but harder to weigh in during short period

especially if direction of rule has changed. Regions can ask their RA to help HQ management change thinking on this, otherwise HQ not planning to provide public comments. OMB process allows other federal agencies with regulatory stake to review and comment. This happens through regional steering committee which has points of contacts in different offices. EPA asked to coordinate comments for final round because of work on guidance and expertise. In past NEPA and OFA have coordinated comments. This issue was also raised at RA HF call. Agencies commenting outside of OMB process is not looked upon lightly.

- ❖ **Reconciling Differences in Requirements:** BLM and EPA are essentially two agencies regulating the same thing with different standards. BLM acknowledges statutory differences. BLM covers all wells on Federal lands and have many more wells to address than UIC because of our interpretation of injection related to diesel. Some effort made to reconcile differences such as with well construction and MI. Unless EPA revises UIC rules it is difficult to reconcile requirements on our side with BLM. BLM rule is not final so there still may be an opportunity. At a minimum, we can work with BLM on informing operators about UIC requirements.
- ❖ **Location of BLM lands in relation to UIC:** Regions have been able to give well locations to BLM to tell if on BLM land but want more mechanized way to determine this. HQ looked at BLM historical data and found that most BLM lands were in R8 and R6. HQ can share data they have on this although it's not that accurate. This would be helpful but regions want HQ to set up mechanism for getting information. R9 has a few coal bed methane projects in CA and R6 and R8 on BLM lands.
- **Funds Available on Diesel Fuel HF Contract:** Money in contract because there have not been permits in-house for HF using diesel. HQ open to ideas for using funds. There is no risk of losing funding. Work assignment is same as it was last summer. Contract was about \$200K and there were 5 tasks related to permit issuance and program revisions (see copy of contract for task details).
 - ❖ **Outreach:** Have contractor mine through FracFocus, identify manufacturers using diesel, and prepare and send EPA approved outreach package to the manufacturers. R3 had 4 operators with 60+ wells using additives identified as diesel (only 2 or 3 additives triggered appeal). HQ may be able to do task under another contract for the research end and can explore outreach angle for the HF Diesel contract.
 - ❖ **Public Noticing Assistance:** Regions spending lot of money for Class II public noticing (3-5 thousand a year currently; newspaper posts can be \$2K-\$10K depending on paper) on public hearings, newspaper publishing, stenographers/court reporter, travel for hearings, etc. These wells could include converted production wells that have been HF although maybe not with diesel. Regions are trying to be cost effective (HQ suggests hiring someone to take notes rather than stenographer or post on web instead of paper which could be expensive—Note: Many problems with this including regulatory) but are dealing with remands and recalls that increase costs and don't have money in budget to address. Maybe funds could be used for this. Could also use funds for meeting UIC requirements for periodically soliciting interested parties and maintaining contact lists for notification of permit activity such as maintaining a listserve. HQ will look into setting up either on regional or national scale.

- ❖ **Conclusion:** Kyle will send out copy of contract includes high level bypass. Regions should contact Kyle with any ideas/suggestions or ways money could be best used for Class II activities including for adding tasks for ideas not covered by existing ones. All ideas seem broad enough to potentially cover in some way under this contract. HQ will consider/explore suggestions put forth in the meeting.

Innovation in Class II permitting/area permits: Jason Deardorff, R8 presentation. (See slides)

- Extensive geology knowledge was needed to develop methodology for setting maximum allowable injection pressure. ORC help was invaluable in streamlining and refining permits.
- **Problems:** Region was facing many problems. Production ramped up in a field with 500 wells. Well conversions were being requested at a rate of 10 wells/month. Had huge backlog due to numerous applications and administrative burdens of process. Months passed before able to even begin reviews. Became vicious cycle because operators kept applying due to backlog. Minor modifications due to step rate tests were coming in at rate of 10/week. There was poor oversight of well conversions and 5 year reviews.
- **Solution and Innovation:** Implemented innovations to help solve issues. Main innovations were (1) True Area Permits: Truly one single permit for all wells. In past, most wells had individual requirements that didn't consider the area permit. Consolidated rules, one set for all the wells in the field. Permits incorporate lots of changes in geology and well technology since initial permits. (2) Use email for communication to streamline the permitting. This resulted in less time, less money, and less paper. Documents reference the area permit avoiding need for pages of text. Email includes checklist for submitted documents for the new well in the area permit. The checklist is signed by the Director and makes FOIA responses easier. (3) Updated database for the area permit including every well in the field. Helpful for conversions, analysis of the wells in the field for use in AOR reviews, reduced duplicative efforts, quicker understanding if converted well meets requirements. (4) Calculation of MIP, methodology permitted rather than MIP for each well, no minor mod needed...if you change an equation input the MIP changes. Added language about HF of UIC wells to the permit, then less need for info from the enforcement group. (5) Enhanced federal law compliance approaches, no effect usually, programmatic agreement outlines how BLM will comply with the NHPA and ESA on behalf of EPA.
- **Results:** Dramatically simplified with single permit document; increased standard of protection and compliance by updating old permits, no wiggle room for operators because didn't allow changes, fewer exceptions for making corrections; Company has real time data for most wells using solar powered telemetry. reduced paperwork burden, more time for management of wells in a timely way; minimum \$5K savings on mailing because of email, savings of FTE time; focusing on well oversight and management more. Went from reactive system to proactive one. Processing time is now only days.
- **Conclusion:** If questions, email Jason. Jason will present at next UIC managers call.

Geosequestration

HQ Update:

- **Guidance:** Working to get guidance documents out--13 GS guidance documents in total. 6 guidance documents are final, 5 have been out for public comment, 2 are being drafted. All available from EPA website. HQ staff is willing to setup webinars for any interested internal parties to discuss guidance documents.
- **GS Data Management Tool:** Working to develop GS data management tool which has the end goal of supporting permit application submittal, monitoring data collection and management, AoR review process, etc. Supports submittal of permits and regulations for direct reporting to EPA. Accommodates different types of information.
- **GS Modeling Software:** Working to expand GS3 modeling software from PNNL to take data from multiple projects. ND has just come in for primacy and would like GS3 to accommodate this.
- **DOE:** Had a number of conversations with DOE to get coordination; shared guidances with them.
- **Monthly Calls With Regions:** These are continuing.
- **Primacy:** ND primacy application was received on Monday. Several other states are exploring. Primacy process manual should be available in late summer/early fall.

Regional updates:

- R3: Enhanced recovery operation is the only project right now.
- R4: Denbury Citronel (AL) is going to ramp up injection. Up to 80-90,000 tons of injection.
- R5: Previously had 8 permit applications: 2 permit apps at the Tenaska Taylorville facility were withdrawn last week. Still have 4 permit applications at the FutureGen 2.0 site and 2 permit applications at the ADM site. The ADM draft permits are hoped to be issued this fall.
- R6: Is supporting the Louisiana primacy crosswalk, they are now revising their Class 3 regs. Due to a sinkhole, they are undergoing a refocusing of resources and personnel transitions; may delay further action.
- R7: Nebraska refocusing resources to permitting. Kansas is exploring options for primacy.
- R8: Pending project in Montana to extract and reinject natural CO2. North Dakota submitted application for primacy last Friday. As of last discussion, C12 is planning to submit an application for a Class 6 project; the application would then go to ND.
- R9: EOR project in Elk Hills field. LA basin may be developed for local emitters.
- R10: One experimental project in WA.

Training: Suggestions for training included modeling (R6); adding Class VI module to inspector manual for compliance and enforcement (R8); and financial responsibility requirements and liability (R5)

Ways to achieve goals of supporting one another and achieve consistency in permitting:

R6: Would be great if R5 could compile a lessons learned list as they go along with applications.

HQ: Also working to document R5's process.

R9: How adaptive is the modeling methods to CO2 projects?

HQ: After AoR model review, permit is issued. Then on every 5 year review of AoR, the rule accommodates evolving technology and allows for evaluation flexibility.

Recognitions: Kudos to all regions for expertise and hard work.

Thursday - Day 4

Class II Oversight Actions (Chitra, HQ; Dan Jackson, R8; Jeff Jolie, HQ)

See - PowerPoint presentation: *UIC HF and Class II Oversight Session.*

- Various groups asking UIC to participate in their oversight actions. These include STRONGER (HF reviews); GWPC peer reviews; ORD DW study (group has offered to add literature review on Class II disposal wells cause relates to disposal piece of water cycle); and GAO study.
- Raises questions (1) How do these efforts fit in with existing oversight actions? (2) What are appropriate responses to questions about Class II oversight and efficacy of Class II wells? (3) Should we pursue some actions or is existing oversight satisfactory and if so how should we message appropriately when asked questions?
- GAO R8 Interview: Covered many aspects of Class II oversight and how we and states are running programs to protect USDWs. GAO had familiarity with UIC rule/regulatory background. Focus was on how we evaluate data for effectiveness. List of interests were as follows:
 - ❖ Data and operational controls - Ability to show and confirm program effectiveness using reported data.
 - ❖ Oversight How are we evaluating the effectiveness of program in protecting USDWs.
 - ❖ Funding & Staff - How programs are funded, adequacy of funding and personnel resources, and availability of personnel resources for field work. (R8 said their DI program has little inspection/field presence type resources but state oil and gas programs tend to have a little more)
 - ❖ Key safeguards for protecting ground water during injection activities.
 - ❖ How region oversees states in identifying violations and about SNC and types of violations
 - ❖ Key differences between state and federal regulations
 - ❖ Kind of information states collect on Class II wells and data gaps (R8 said don't get full picture of what is being injected because suite of analytes in injection fluid analyses are narrow)
 - ❖ Precise knowledge in long-term fate and transport of injected fluids.
 - ❖ Talked very little about effectiveness versus equivalency for 1425; GAO seemed already familiar with this program aspect; GAO wanted to focus more on program data and how UIC evaluates effectiveness in protecting USDWs.
- **GWPC Peer Reviews** – GWPC lead these back in 1990s but discontinued; want to restart efforts; updated questionnaire and provided to EPA for review and comment ; included expectations for how process will work and desired level of EPA participation (they want more active EPA role than before). Regions felt GWPC efforts not as in-depth as EPA oversight and should not be considered a substitute for an EPA review. Reviews will include DI programs.
- **STRONGER** - Developed review process and guidelines for HF; EPA reviewed and commented on recent update but unsure how input used; want EPA to participate in their state O&G program reviews; some regions participated in past (R3 for PA HF regulation review, R8, and R6 as observers only). Review scope and process is limited and different from regular UIC reviews (R3 and R6 review was of limited value because dealt with non-primacy state and production wells and monitoring; R3 briefed on PA review results). EPA participates as observer (in room but silent), and can comment at end of each day for record or during breakout sessions. Focus is more on solid waste generated from production side and in relation to solid waste regulations. States get questionnaire prior to face to face meetings. Report is developed from questionnaire. States must volunteer to be reviewed (R8 and HQ heard WY recently volunteered).

- **Case for EPA Involvement:** Regions have huge workload. Program is under increasing scrutiny due to concerns about seismicity or HF and public confusion between Class II wells and HF wells. Programs struggle with resources to do effective, thorough reviews as frequently as they would like. Some have policy to do every 3 years (R7 and R5), some do program reviews focusing on workplan accomplishments (not complete effectiveness) through grant process (R8), some reviews last done 5 or more years ago (R5 and R6), and some are looking to do more frequently than 3 years due to Class II program challenges (R5). RCRA's incentive for working with STRONGER for example is few resources for program evaluations and this may similarly be a case for GWPC to do UIC Class II reviews because of gaps.
- **Concerns About EPA's Involvement:**
 - ❖ perception that peer reviews replace regular program oversight which is an inherently federal government activity
 - ❖ overlap of processes and how we resolve our role
 - ❖ pushback and confusion from states due to multiple reviews and processes; states could become overwhelmed with being audited from different processes and push back on EPA attempts to audit.
 - ❖ uncertainty of how inconsistencies in processes will play out even with understanding intent of each
 - ❖ complications that could result from unexpected performance issues EPA missed or claims that EPA fully aware of issues due to participation or outcomes that could be used against agency in the future somehow; potential for regions to be put in bad or uncomfortable positions
 - ❖ appearance that review is EPA position.
 - ❖ states may fear EPA participation and EPA could be viewed as bad guy in process because our regular reviews more detailed.
 - ❖ opens up many questions that need to be addressed if going out every year to look at effectiveness of these programs.
- **Conclusions about EPA Role in peer reviews and relation of these reviews to regular EPA state oversight:**
 - ❖ Peer reviews are good to do but should not replace regular oversight (regions have inherently governmental role to do own reviews separate from peer review process). Must make clear that peer reviews are separate from and not a replacement for regular EPA audits. There are many advantages including sharing and implementation of best practices, receiving overall program feedback, and results can inform regular EPA audits.
 - ❖ Regions are open to potential opportunity for EPA to participate as an observer provided EPA role made clear at outset (what role is and isn't and make clear in report; we have override abilities for example), EPA has clear insight into and clear understanding of how peer review processes will work, other priorities and lack of resources do not impede, and results would be meaningful/helpful to region overseeing state. Must be careful with appearance of bias.
 - ❖ GWPC questionnaire is good template and better for regions to modify and use than GWPC.
 - ❖ STRONGER process too restrictive and results may be of limited value. STRONGER does more holistic review of HF including more programs and environmental groups (UIC is a subset)
 - ❖ GWPC and STRONGER will compete for UIC funds although GWPC review is UIC specific.
 - ❖ Parking Lot Issues: (1) There is confusion about how GWPC peer review will be coordinated if at all with STRONGER reviews and how to reconcile overlaps. Will both processes work the same? (2) Shouldn't GAO be doing DI program audits and not GWPC? HQ says Congress

charges GAO to do investigations. (3) overall program effectiveness is related to 147 updates and ensuring that regulations are updated and satisfactory to the agency.

GAO

- Sitting committee and other congressmen authorized GAO investigation into how EPA and States are implementing Class II programs, how EPA oversees state programs, and key implementation challenges. Have investigated UIC before and won't be last.
- Investigation expected to take 10-12 months.
- HQ had entrance conference in December 2013 with GAO and a number of follow-up conference calls requesting information. Got sense that GAO staff working out of Denver.
- GAO seemed to have already decided which states and regions to interview.
- GAO staff seen at last GWPC meeting and probably decided which DI and state programs to talk to at that time. (R7 says focus is all states with HF and/or seismicity issues)
- GAO has 7520s from 2008 – 2012 and other compliance information.
- GAO touching on many different program facets including well classification and construction, implementation, abandoned Class II wells, program implementation challenges, differences in state and EPA Class II enforcement actions, inspections, and enforcement.
- HQ unsure how investigation will go or what GAO will do with information but is certain there will be a report.
- EPA had difficulty in past with GAO findings.
- HQ is seeing focus on compliance looking at enforcement actions taken, HF guidance, ORD study, and funding.
- HQ urges Regions to be responsive to GAO requests; to educate GAO about documents provided; and ensure we are working together as a team. Getting right message out is important. Great efforts are being made to run programs and UIC is complex. Keep HQ informed of any GAO contacts.
- Many regions and programs have already been questioned by GAO
 - ❖ R3 - GAO request was more limited in scope. GAO staff was out of Atlanta. They wanted all Class II violations and subsets of violations SNC, for Class II PA and sample of actions associated with them. Specifically asked for any activity rising to level of hearing but had to explain that hearing not associated with level of violation but rather response to proposed order or custody hearing on appeal of proposed order.
 - ❖ R4 - met with GAO and responded to huge list of questions; found interesting that GAO met with OECA and OECA did not mention their cuts directed at the UIC enforcement program; Kentucky may be visited.
 - ❖ R5 – Ohio was visited per R7.
 - ❖ R7 - aware that GAO staff out of San Francisco talked to Kansas Commission and GAO did not contact region about it at all.
 - ❖ R8 - had GAO staff out of Denver visit them and spoke with GAO out of Dallas, San Francisco, and Atlanta by phone. GAO planned to visit Wyoming, ND, and Colorado.
- Helpful for regions to get idea of what GAO wants.
 - ❖ Type of questions and issues GAO is raising.
 - ❖ Which states GAO is looking at (HQ will inquire but can't make promises)
 - ❖ Copy of actual request for GAO investigation and who are the committee members. GAO said it is not policy to provide. (HQ and others will send what they have to accompany minutes)
- No one really knows GAO methodology or approach; regions contacted/visited from GAO staff out of Atlanta, Dallas, Denver, San Francisco.

- *Conclusion: HQ will do standing topic on GAO inquiry at future National UIC conference calls for regions to share related information and experiences; regions should send information on GAO inquiries to Bob.*

Financial Responsibility (Joe Tiago, HQ)

See also - PowerPoint presentation: *Financial Responsibility File Review Findings and Recommendations.*

- **OECA Initiative:** OECA is leading effort to convert Financial Assurance Submissions into electronic records database; HQ was part of small WG to get program buy-in. WG reached conceptual agreement that there are many challenges that need to be addressed before moving forward; line budget item added to support initiative.
- **Class II 1990 FR guidance Revisions** – FR review team worked to sort through issues. Incorporated comments from last FR call. OGC has the revised guidance and is reviewing it. Internal management review is needed (not yet briefed). Once final, the revision will replace the old document on the web. Thanks to regions for input. If issues come from OGC review, HQ will re-circulate resulting version so regions can weigh in on changes. *Conclusion: HQ will await OGC review and re-circulate guidance for regional input before finalizing. Once final, HQ will brief management and replace old web version with revision.*
- **144.62 Compliance** –Class I hazardous well operators must use cost index to estimate costs of plugging and abandonment but US Energy Information Administration no longer updates it (last update was 2009); this is a roadblock to compliance that OECA, regions, and states have raised; operators can't provide estimate based on most recent cost index as regulations require; met with OGC and options presented to resolve included changing regulations or develop guidance offering alternative demonstrations or alternative cost indexes to use; guidance is least burdensome approach but no decision made; HQ found 2 alternative cost indexes to recommend—Engineering News Record Index and Bureau of Labor Statistics Cost Index; we could target one index or offer a list to choose from; regional input would be helpful; been getting calls from applicants and states on issue for last 6 months. One recommendation was to have o/o submit several contracted quotes for programs to decide coverage. *Conclusion: Regions should email Joe with suggestions; Joe will follow-up on logistics of implementing the suggestion for contracted quotes.*
- **FR and Company Bankruptcy** – Some regions need description of what takes place when this happens. EPA can't handle the money. R4 had to plug high priority orphan wells and worked with ORC/OGC to establish ways to use the FR instruments which involves MOU with the state. HQ interested in hearing more about topic and sharing with other regions. Program Director can take actions unique to circumstances such as company bankruptcy. *Conclusion: Discussion will be added to next UIC managers call. R4 will share MOU.*
- **FR Project Update** – Process started in RCRA program; UIC adopted in 2007 to do research on what was out there; a multiphase approach was suggested in evaluating FR in targeted programs. Did remote (because resources limited) and site visits. Selected and reviewed regions 5, 6, 7, 8, and states within these regions. Goal was to share information and learn from programs to improve FR, sharing challenges and best management practices. Requirements and documents were compared against regulations for Class I Hazardous since there is no specific language for other well classes. Reviewed those programs using wide array of instruments. Evaluated instrument language, management practices, adequacy of coverage amounts, benefits and challenges of each instrument. Reviewed approx 260 demonstrations amounting to 600,000,000 dollars worth of instruments.
 - ❖ Some Key Findings (File management and Review key areas):
 - Documentation and instrument language were the main issues.
 - Third party surety bonds and letter of credit were widely used over self insurance

- because they are easier to obtain and review.
- Some states not using surety bonds and letter of credit because banks don't offer the product anymore. Banks were shifting from paper to electronic issuance but states unable to take advantage of this.
- Surety bonds accounted for 75% of total value.
- State and DI reviews differed in terms of frequency, accuracy, and level of detail.
- There are no checklists to track FR updates and couldn't tell what well classes or inventory covered by instruments. No electronic inventory of wells.
- Municipalities were treated differently regarding level of detail.
- State blanket bond amounts while set by regulation were inadequate.
- Provisions to address bankruptcy not well captured.
- State orphan well plugging funds problematic and creates huge responsibility for states.
- Main challenge staffing, resources, and knowledge. Programs open to training. Not enough experts in programs.
- Many states and regions found the reviews to be extremely helpful. Some states were open to taking recommendations to their mgmt to begin discussions.
- ❖ **Main Recommendations:**
 - Require third party cost estimates particularly for self insurance.
 - Have good tracking system for orphan and abandoned wells and compare to FR obligation.
 - Review instruments regularly at least annually to catch bond rating downgrades.
 - Use director discretion to require standard language. List schedule A, include well type, date, and bankruptcy provisions.
 - If blanket bond, good to set max number of wells to be covered.
 - Train staff on FR.
 - Use standardized language for Class I and Class VI to make instruments standard and improve implementation of FR requirements.
 - Create FR review checklist for all programs nationwide to use.
 - Critical to discuss FR during oversight reviews, particularly Class II.
 - Organize documents and be prepared for audits such as by GAO.
- **FR Review Checklist:** Decided this tool was needed to help programs meet FR requirements. Drafted and sent to regions for feedback. Only a few regions commented. HQ is working to finalize it. Hope it will be a useful tool for programs. Know states would view checklists as helpful. *Conclusion: HQ will resend checklist for comments before finalizing.*
- **Conclusion:** HQ will do workshop at GWPC meeting in MO (Sept 24-26) and will follow-up with regions and states there.

Next Steps

- **Videoconference lessons learned:** Want these meetings to be as good as possible. Suggestions to improve are helpful. Some discussed at meeting are listed below. *Conclusion: Email Region 5 with recommendations. Region 5 will pull together document.*
 - ❖ **Smaller UIC Programs:** Smaller programs need way to ask simple questions about topics they don't generally deal with without interrupting the whole conversation. Setting aside time for this or general Q&A may help.
 - ❖ **Stagger Sessions:** Don't do days in a row; skip days or do over period of two weeks.
 - ❖ **Flipchart:** Needed for consistency throughout meeting, to maintain key ideas, and for next

steps and wrap-up discussion. This can be accomplished in several ways. Assign a primary person to do flipchart. Discussion lead can assign colleague to do or do on own. Maybe even booking separate room for flipchart person. Person doing flipchart can show it using presentation mode. Must find out if can do flipchart and powerpoint at same time.

- ❖ **Mute:** Hard to hear presenter if everyone else is not on mute.
- ❖ **Pros & Cons of Format:** This may become way of the future. Can use to make best meeting possible when can't meet face to face which many prefer. Better than conference call because people generally like seeing each other and it is helpful to be able to place face with name and voice. People hesitant to speak up in this forum. Hard to keep spirit of camaraderie so must find ways to do this. Some ways include to smile more, engage each other, don't feel inhibited to jump in so discussion more lively, instant message or email each other to replace note sliding, adjust cameras so participants look closer than far away. Participants had many interruptions and got pulled away for fire drills which are easier to deflect off-site allowing more focus on meeting.
- ❖ **Budget in Advance for Face-To-Face:** Set aside money and plan closer to end of fiscal year when money most likely to free up. Although, know difficult to forecast and do. Helpful if HQ could release allocations and money sooner but difficult to do particularly with current budget climate which gets more challenging every year. Many like format because managers can have key staff sit in on topics where unable to do at face-to-face.
- ❖ **Parking Lot:** GWPC should consider setting up webinar/videoconference/conference call formats for regions and states who can't attend (GWPC Lite).

- **Next Steps Summary**

See Attached.